

TEMPLE UNIVERSITY

Department of Mathematics

**Applied Mathematics and
Scientific Computing Seminar**

Room 617 Wachman Hall

Wednesday March 14, 2007 at 4 p.m.

Sharp integral inequalities for harmonic functions

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Motivated by Carleman's proof of isoperimetric inequality in the plane, we study some sharp integral inequalities for harmonic functions on the upper half-space. We also derive the regularity for nonnegative solutions of the associated integral system and some Liouville type theorems. This is a joint work with Fengbo Hang and Xiaodong Wang.